OBJECTIVES: Hemophilia B is a rare and expensive to treat disease. The aim of this study was to develop an economic evaluation of prophylactic vs on-demand supply of recombinant factor IX (rFIX) in the treatment of patients with severe hemophilia B, from the Social Security Mexican Institute (IMSS) perspective. **METHODS:** A three-state Markov model (two-week cycles) following male patients from birth up to 75 years was developed to estimate the cost and outcomes of prophylactic (30 IU/kg body weight/week) and on-demand (40 IU/kg body weight/joint bleed) approaches to manage haemophilia B. On-demand was considered the usual practice. Effectiveness measure was the QALY. A literature review was performed to extract Mexican demographic and general epidemiologic data needed to populate the model. Treatment cost data (inpatient, outpatient, emergency services, medicines, laboratory and image studies) were extracted from Mexican published databases (the acquisition cost of rFIX was provided by the manufacturer). Health and economic consequences were assessed in different age groups. Both costs and outcomes were discounted at 5% annual rate Probabilistic sensitivity analyses and acceptability curves were constructed. **RESULTS:** Cost of rFIX in prophylaxis represented 60.3% and 90.4% of the total annual cost in the ≤4 years and >19 years groups, respectively. In on-demand approach, the cost of the therapy represented 45.3% and 83.9% in the ≤4 years and >19 years group, respectively. The incremental effectiveness for rFIX is close to one QALY in all age groups. The ICER of prophylaxis in patients ≤4, 5-9, 10-14, 15-19, >19 years old was US$5,281.33, US$14,586, US$15,172, US$20,398 and US$40,291/QALY gained, respectively. Acceptability curves showed an inverse relationship between age and cost-effective proportion. **CONCLUSIONS:** At IMSS setting, the prophylaxis with rFIX for the management of patients suffering severe hemophilia B appears to be a highly cost-effective and a cost-effective intervention in children and teenagers, respectively.

PSY31

ECONOMIC EVALUATION OF ELETRIPTAN 40MG FOR MIGRAINE THERAPY IN KOREA

Kim HJ, Oh JJ, Park HJ, Ko SK
Pfizer Pharmaceuticals Korea Limited, Seoul, South Korea

OBJECTIVES: Migraine is a common central nervous system disorder. The burden of migraine is substantial due to its high prevalence and prominent temporary disability. This study investigates the application of cost-effectiveness analysis, from the Korean health care system perspective, for the comparison of eletriptan 40mg and sumatriptan 50mg in the acute treatment of migraine attack. **METHODS:** A decision tree model was developed to estimate migraine treatment cost and efficacy. Clinical data was derived from a clinical trial comparing oral eletriptan to oral sumatriptan (G. Sandrini, 2002). Efficacy measures consisted of "pain-free at 2 hours (PF2)" and "sustained pain free for 2-24 hours (SPF)". Drug costs for initial dosing, second dosing for relapse, physician visit cost, and emergency visit cost were taken into account. Citing 2008 HIRA report, physician visit cost and emergency visit cost were calculated. All costs converted into 2011 Korean Won (KRW). The time horizon was a single migraine attack. **RESULTS:** In the base-case analysis, assuming the eletriptan 40mg drug cost (4,775 KRW) is 20% higher than sumatriptan 50mg drug cost (3,979 KRW), the average cost-effectiveness ratio (ACER) were 23,702 KRW and 36,239 KRW (per attack at which PF2 is achieved) for eletriptan 40mg and sumatriptan 50mg, respectively. Also, ACER for SPF per attack is achieved was 26,054 KRW and 40,837 KRW for eletriptan 40mg and sumatriptan 50mg, respectively. **CONCLUSIONS:** Although eletriptan 40mg is more costly than sumatriptan 50mg, because of eletriptan 40mg's superior efficacy, the ACER of eletriptan 40mg was lower than sumatriptan 50mg in the treatment of migraine attack, with respect to PF2 and SPF aspects. Eletriptan 40mg has a potentially important role to play in the cost-effective management of migraine.

PSY32

COST- EFFECTIVENESS ANALYSIS OF PARECOXIB IN THE MANAGEMENT OF POSTSURGICAL PAIN IN MEXICO

Muciño-Ortega E, Galindo-Suárez RM
Pfizer S.A. de C.V., Mexico City, Mexico

OBJECTIVES: Pain management is an important dimension of postsurgical care. The aim of this study was to determine the cost-effectiveness of parecoxib, morphine, buprenorphine and ketorolac in the management of postsurgical pain, from the perspective of the Mexican Social Security Institute (IMSS). **METHODS:** A decision-tree model was used to assess the outcomes of parecoxib 40mg; buprenorphine 0.12, 0.18 and 0.36mg; morphine 4, 6 and 12mg and ketorolac 30mg in women who received them in the morning after their gynecologic surgery. In case of failure, rescue therapy with morphine 4mg was allowed. The time horizon is 12 hours after the medication was received. Only the acquisition cost was considered (2011 US$). The effectiveness outcome was the proportion of respondents who experienced onset of analgesia and rated their medication as "good" or "excellent" (through patient's global evaluation of the study medication questionnaire). Literature review was performed to extract the clinical outcomes of competing alternatives (the doses of morphine 4mg, buprenorphine 0.12mg and so on, were considered equianalgesic). Acquisition costs were extracted from official institutional sources. The results of the analysis are expressed through the ICER (ketorolac as basecase). Univariate sensitivity analysis was performed. **RESULTS:** The proportion of respondents treated with morphine 4mg-buprenorphine 0.12mg, morphine 6mg-buprenorphine 0.18mg, morphine 12mg-buprenorphine 0.36mg, ketorolac and parecoxib was 44.21%; 44.21%; 46.42%; 63.64% and 71.76%, respectively. The expected cost per patient of morphine 4mg, buprenorphine 0.12mg, morphine 6mg, buprenorphine 0.18mg, morphine 12mg, buprenorphine 0.36mg, ketorolac and parecoxib was $4.53; $1.45; $6.32; $1.71; $11.69; $2.48; $0.84 and $7.12, respectively. All the alternatives (except parecoxib, ICER: $77.30) are dominated by ketorolac. Furthermore, parecoxib is more effective than competing alternatives but only less expensive than morphine 12mg. **CONCLUSIONS:** At IMSS setting, parecoxib appears to be cost-saving regarding morphine 12mg and cost-effective regarding ketorolac, buprenorphine and morphine 4 and 6mg.

PSY33

ADAPTATION TO COLOMBIA AND VENEZUELA OF THE ECONOMIC MODEL DASATINIB FIRST-LINE TREATMENT OF CHRONIC MYELOID LEUKEMIA, DEVELOPED BY THE YORK HEALTH ECONOMICS CONSORTIUM

Orozco JJ[1], Valencia JE[2]
[1]*Universidad CES, Medellin, Colombia,* [2]*Bristol-Myers Squibb Company, Bogota, Colombia*

OBJECTIVES: Based on an economic evaluation of cost-effectiveness of frontline dasatinib treatment for chronic myeloid leukemia by the York Consortium and after transferability analysis of data, we performed an adaptation of this model in Colombia and Venezuela. We compared the costs and cost-effectiveness ratio of dasatinib 100 mg/day versus imatinib 400 mg/day and nilotinib 600 mg/day as frontline treatment for CML in its three phases. with increases to 140 mg/day of dasatinib, 800 mg/day of imatinib and 800 mg/day nilotinib in a second-line therapy. **METHODS:** The original model considered those patients with CML who had not received previous treatment and a Markov's model with probabilities of change for the chronic, accelerated and death phases, over the lifetime and with a costs and benefits discount rates of 3.5%. Direct medical and treatment cost and mortality rates were taken from the local jurisdiction and WHO life tables. The results of the model included the costs of each alternative treatment with dasatinib, nilotinib or imatinib and the QALYs (Quality Adjusted Life Years). Costs are expressed in 2011 Colombian pesos and Venezuelan strong bolivars. **RESULTS:** Dasatinib 100 mg/day as frontline treatment for CML produced the greatest number of QALYs, both in Colombia and Venezuela with 10.67 and 10.53 QALYs respectively, compared with imatinib; 10.10 and 9.97 QALYs and nilotinib; 10.50 and 10.36 QALYs Dasatinib 100 mg/day was also more cost-effective than nilotinib as frontline treatment for CML, being dominant in both these countries. **CONCLUSIONS:** In the frontline treatment for CML in Colombia and Venezuela, Dasatinib was more effective than imatinib and nilotinb and showed better rates of cost-effective than nilotinib been dominant in both countries. Although there was an increase in overall costs, this is due to the increase in life years gained and thus in greater use of medical resources and medications.

PSY34

ASSESSING INTERVENTIONS FOR ADULTS WITH METABOLIC SYNDROME: A COMPREHENSIVE ECONOMIC MARKOV DECISION MODEL

Castro M, Dequen P, Davies MJ, Khunti K, Abrams KR
University of Leicester, Leicester, UK

OBJECTIVES: Metabolic Syndrome (MetS) is defined as a clustering of risk factors for diabetes mellitus (T2DM) and cardiovascular disease (CVD) which puts individuals at increased risk of developing these conditions and consequently leads to a reduction in life expectancy and increased morbidity. **METHODS:** A systematic review and network meta-analysis was undertaken to assess the relative clinical effectiveness of a number of lifestyle and pharmacological interventions, both independently and in combination. A second systematic review, and series of meta-analyses, was also undertaken to estimate the increased burden that a MetS diagnosis has on the subsequent risk of T2DM, CVD and all-cause mortality. A fully probabilistic economic Markov decision model was developed in WinBUGS, and which directly included the series of meta-analyses above, in order to assess the cost-effectiveness of the various interventions. **RESULTS:** The use of both lifestyle and pharmacological interventions in combination was dominated in the incremental cost-effectiveness analysis, with the use of both of them independently producing greater health gain at lower cost. Pharmacological intervention was cost-effective compared to standard care (ICER £3050 with a probability of 0.53 at a threshold value of £20K/QALY), and lifestyle intervention was cost-effective compared to pharmacological (ICER £6933 with a probability of 0.52 at a threshold value of £20K/QALY). A series of sensitivity analyses were also undertaken both with regards to the model inputs/distributions and a number of methodological assumptions, but the results remained largely insensitive to these changes. **CONCLUSIONS:** The use of a lifestyle intervention would appear to be a potentially cost-effective treatment strategy for adults with MetS, however considerable uncertainty surrounds this decision. The use of a comprehensive approach to economic modelling within a WinBUGS framework allowed distributional assumptions to be relaxed, sources of correlation to be appropriately accounted for, and more complex sensitivity analyses to be easily undertaken.

PSY35

ECONOMIC EVALUATION OF LENALIDOMIDE IN THE MANAGEMENT OF PREVIOUSLY TREATED MULTIPLE MYELOMA (PTMM) PATIENTS IN GREECE

Fragoulakis V, Kourlaba G, Maniadakis N
National School of Public Health, Athens, Greece

OBJECTIVES: To assess the cost-effectiveness of lenalidomide with dexamethasone (Len/Dex) combination relative to bortezomib alone, in previously treated multiple myeloma patients in Greece. **METHODS:** A discrete event simulation model was locally adapted, to estimate the differences in the overall survival and treatment cost for the two alternative options. Efficacy data utilized came from the two large, multicenter, controlled, randomized clinical trials for the first option and an open label study for the second. Quality of life data were extracted from international sources. Data on resource use and prices were collected from the electronic databases of local hospitals and other relevant sources. The perspective of the analysis was that of payers. Total cost accounts for the monitoring and admin-